

Montana  
Department of  
Natural Resources  
and Conservation  
Forested State Trust  
Lands Habitat  
Conservation Plan  
DRAFT Annual  
Update

**Reporting  
Period**

January 1,  
2013-  
December 31,  
2013



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## INTRODUCTION

The Montana Department of Natural Resources and Conservation (DNRC) Forested State Trust Lands Habitat Conservation Plan (HCP) is a plan DNRC developed in order for the United States Fish & Wildlife Service (USFWS) to issue an Incidental Take Permit (Permit) for a 50-year term. In the HCP, DNRC committed to provide the USFWS annual updates and 5-year monitoring reports for the duration of the plan. The updates and monitoring reports serve to help the two agencies assess the success of HCP implementation and the effectiveness of conservation commitments. This is the second annual update, and the reporting period for this update is January 1, 2013-December 31, 2013. According to the results reported in the following sections, DNRC has fulfilled its annual commitments for monitoring and reporting according to HCP Chapter 4 – Monitoring and Adaptive Management (DNRC 2010).

The DNRC and the USFWS will meet annually to discuss annual updates or 5 year monitoring reports, whichever is applicable. As outlined in Chapter 8- HCP Implementation, these meetings not only allow DNRC to present USFWS with the annual updates, they also serve as an information sharing opportunities and facilitate communication between the two agencies (DNRC 2010).

## MONITORING AND ADAPTIVE MANAGEMENT

During development of the conservation strategies, DNRC and the USFWS included commitments to monitor certain aspects of the HCP conservation strategies. The monitoring and adaptive management program provides assurances that the HCP is being appropriately and effectively implemented, and outlines a course of action if the conservation strategies are not yielding the desired results.

### Monitoring

There are two types of monitoring: (1) implementation monitoring and (2) effectiveness monitoring. Implementation monitoring ensures implementation of DNRC's conservation commitments throughout the Permit term. Implementation monitoring represents DNRC's largest monitoring commitment associated with the HCP and involves tracking, reporting and evaluating whether the covered activities are being performed in compliance with the HCP requirements. Implementation is primarily documented through project-level HCP checklists and validated through office and field reviews (DNRC 2010).

Effectiveness monitoring typically involves evaluation of a particular conservation commitment or suite of commitments designed to have a desired effect on a target species or resource. This type of monitoring is very intensive and requires extensive resources and expertise to conduct data collection and perform related analyses. In Chapter 4-Monitoring and Adaptive Management, DNRC and the USFWS recognize that this type of monitoring is beyond the scope and expertise of the DNRC and would be very expensive for the species being addressed in the HCP (DNRC 2010). Given those sideboards, as well as the fact that DNRC land ownership only comprises a small portion of the overall land area, effectiveness monitoring is fulfilled through a commitment by both the DNRC and the USFWS to review new relevant research at the annual meeting, and through DNRC's commitment to conduct limited monitoring to evaluate whether the management prescriptions and conservation commitments are having the desired effect on the given resource or species.

The monitoring tables in this update summarize both the implementation and effectiveness monitoring that took place during this reporting period. The tables contain information that must be reported annually as described in tables in the HCP Chapter 4 (DNRC 2010). The tables contain abbreviated

descriptions of the HCP commitments that DNRC is required to report on annually. For full descriptions of those commitments, please see Chapter 2 of the HCP.

## Adaptive Management

Adaptive management is a process whereby conservation commitments and management actions may be changed based on the results obtained from effectiveness monitoring and/or research. This process results in a feedback loop that incorporates better understanding into everyday practices. This update serves as a component of the adaptive management process.

## HCP CHECKLIST

To comply with HCP commitments, tools and protocols had to be developed. Many of the accomplishments listed in this update reflect the development and early implementation of these tools and protocols. As time progresses, refinements may occur as new and improved methods are discovered.

HCP checklists are the primary means by which the DNRC documents compliance with HCP commitments. These macro-enabled spreadsheets contain the HCP commitments specific to each field unit. The spreadsheets allow field practitioners to verify whether or not the commitments are being implemented, and they serve as prompts to ensure that all applicable commitments are applied on each project. The checklists provide the opportunity for many of the HCP commitments to be tracked in one place. At the end of the reporting period the checklists can be compiled into a database that provides information required in the annual updates and 5 year reports. Much of the information in the following tables was compiled using the checklists and the associated database.

There were 31 HCP checklists completed during this reporting period. Twenty-six of those projects were timber harvests (includes salvage), three pre-commercial thinning projects and three Right-of-Way easements/road use permits.

## GRIZZLY BEAR

DNRC manages state trust lands located within grizzly bear habitat. The following table outlines the reporting requirements and results for grizzly bears.

*Table 1 Grizzly bear reporting requirements and results*

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
GB-PR1(2) Information Education (initially & 5 year) – Providing bear avoidance training for employees	Submit training content and methods to the USFWS	Approved bear training DVD and employee tracking process in place July 30, 2013. All staff that normally, or occasionally, perform duties associated with HCP-covered activities viewed the training video. As of January 21, 2014 over 123 employees had viewed the video and registered.	v.2. 4-10

Table 1 Grizzly bear reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
GB-PR4 Constructed open roads in RMZs, WMZs or avalanche chutes. (allowances reported annually)	HCP Checklist was reviewed on each project.  All projects with such construction, and the circumstances, would be reported.	From HCP implementation checklist  Number of projects that were reviewed = 31  Number of projects had open road construction in one or more of these areas = 0.	v.2.4-11
GB-RZ6 Granting of Easements – Discourage granting of easements that relinquish DNRC control on roads within grizzly bear recovery zone. (annual and 5 year)	Use HCP Implementation Checklist to Identify Circumstances and Mitigation Associated With the Easement.  Annually compile the number of easements granted and associated miles of newly created open roads.	There were 0 reciprocal access agreement completed in grizzly bear recovery zones. However, there was: 1 permanent easement with Stimson Lumber made in the CYE NROH (.88 miles), and 1 Temporary Road Use permit was granted in the CYE NROH. This easement was granted so new road would not have to be built. (.14 miles)  No new <u>open</u> road was created as a result of either agreement.	v.2.4-15
GB-ST1 Bear presence signs. (year 2)	Number and locations included in accomplishment report for Stillwater Unit.	Stillwater Unit has 6 mapped sign locations that were reported to the USFWS in 2012. Signs were designed, printed and constructed in summer 2013, and they were delivered to Unit office the week of September 9, 2013. All 4 signs will be prioritized for installation during the field season 2014. Twenty four total signs (includes 9 replacements) were designed and constructed at a total cost of \$3,860 (total does not include cost of bolts and posts).	v.2.4-16
GB-SW1 Bear presence signs. (year 2)	Number and locations included in accomplishment report for Swan Unit.	Swan Unit has 11 mapped sign locations that were reported to the USFWS in 2012. Signs were designed, printed and constructed in summer 2013, and they were	v.2.4-19

Table 1 Grizzly bear reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
		delivered to Unit office September 6, 2013. Five of the 11 signs were installed as of October 23, 2013. The remaining 6 will be prioritized for installation during the field season 2014. One sign located on the Fatty Creek Road was vandalized soon after it was put up in fall 2013.	
GB-SC1 Maintain or decrease baseline open road amounts at the administrative unit level. Improve GIS road layer. (annually as needed)	Report open road amounts (tracked with GIS) at the administrative unit level to compare with HCP baseline.  GIS data quality and management reported at annual meeting.	Little change is present compared to 2013 results (Attachment G-1). Anaconda Unit showed appreciable decrease in open road amounts due to improved road closures and data updating.  There were two open road reduction checklist forms filled out. In conjunction with the Bear Creek Salvage in the NCDE Recovery Zone on Kalispell Unit 4.3 miles of existing open road were closed and will be managed as restricted. The other parcel evaluated was on Libby Unit in conjunction with the Majestic Timber Permit. No roads either pre or post harvest were present on this parcel.	v.2.4-22
GB-SC4	Report Pits Operated >0.25 Miles From Open Roads in Resting Parcels and Mitigations Applied.	There were 0 projects with pits operated >.25 miles from open roads in resting parcels.	

## CANADA LYNX

Some of the forested trust lands managed by DNRC occur within the distribution of Canada lynx, which was listed as threatened in 2000 by the USFWS. The lynx conservation strategy incorporates many of the existing Forest Management Administrative Rules of Montana (ARMs) and describes additional commitments based on recent information and studies. The following table outlines the reporting requirements and results for Canada lynx.

Table 2 Canada lynx reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
LY-HB1 Lynx Habitat Map – Track lynx habitat in the HCP project area. (annual)	Provide lynx habitat map depicting annual changes and table that includes lynx habitat amounts by type for each administrative unit and LMA.	Results are provided for year 2014 in Habitat tables found in Attachment L-1 and L-2.	v.2.4-29
LY-HB6 Maintain 65/35% ratio of suitable/non-suitable habitat on scattered parcels outside of LMAs. (year 2 and 5)	Report acres and percentage of total potential lynx habitat, suitable lynx habitat and temporary non-suitable habitat on scattered parcels outside the LMAs for each land office	CLO = 28,820 ac; 71% suitable NWLO = 56,310 ac; 86% suitable SWLO = 19,391 ac; 79% suitable  See lynx habitat table Attachment L-2 for 2014.	v.2.4-32
LY-LM1 Maintain 65/35% ratio of habitat suitability in LMAs. (year 2 and 5)	Report acres and percentage of total potential lynx habitat, suitable lynx habitat and temporary non-suitable habitat on HCP project area parcels within each LMA.	All in compliance except Seeley Lake LMA at 61% due to Jocko Lakes Fire. <sup>1</sup>  See lynx habitat table Attachment L-1 for 2014.	v.2.4-33
LY-LM3 Maintain 20% of total habitat as winter foraging habitat. (year 2 and 5)	Report acres of total potential habitat and current percentage and acres of winter foraging habitat on HCP project area parcels within each LMA.	All in compliance See lynx habitat table Attachment L-1 for 2014.	v.2.4-34

<sup>1</sup>When the ITP was issued in February 2012 the Seeley LMA was at less than 65% suitable habitat as a result of the 2007 Jocko Lakes Fire. DNRC has implemented measures to not further reduce suitable lynx habitat below the existing level of 61% in this LMA.

## AQUATICS

The aquatic conservation strategies were developed by DNRC with the technical assistance of the USFWS. The process was initiated by identifying a specific biological goal applicable to the three HCP fish species. The identified biological goal was to protect bull trout, westslope cutthroat trout and Columbia redband trout populations and their habitat and to contribute to habitat restoration or rehabilitation, as appropriate, which may have been affected by past DNRC forest management activities. Commitments were developed to address known scientific information and uncertainties in

scientific knowledge, as well as existing data gaps (DNRC 2010). The following table outlines the reporting requirements and results for the Aquatics Conservation Strategy.

*Table 3 Aquatics reporting requirements and results*

<b>HCP COMMITMENT (Reporting Frequency)</b>	<b>REPORTING REQUIREMENTS</b>	<b>ACCOMPLISHMENTS &amp; RESULTS</b>	<b>HCP Page(s)</b>
AQ-RM (1) Riparian Management Zone Commitments. (annual)	Complete HCP Implementation checklist review on all sites.	<b>During 2013</b> , RMZs were delineated on 13 projects containing class 1 streams or lakes. Only 3 of these projects include plans for a total of approximately 9.7 acres of RMZ harvests.	v. 2.4-39
AQ-RM (2) Thresholds for RMZ harvest allowances. (annual and 5 year)	Acres of Class 1 RMZ, Acres of Class 1 RMZ harvest under allowances, and RMZ area in non-stocked or seed/sapling size class, by aquatic analysis unit (AAU).	No RMZ harvest allowances were utilized during timber sales prepared in 2013. The only AAUs currently above the 20 % thresholds for non-stocked and/or seedling/sapling size class are the Bitterroot (33%) and North Fork Flathead (22%) AAU. These areas are above threshold levels due to the effects of the 2000 and 2001 wildfire events.	v. 2.4-39
AQ-SD Implement sediment delivery reduction commitments. (annual)	Amount of new road constructed, reconstructed, relocated, abandoned and reclaimed. Include maps (may be contract maps first few years until GIS is available).	Road activities included in timber sale contracts sold from January –December 2013 include: <b>25.6 miles</b> of permanent road construction <b>10.9 miles</b> of temporary road construction <b>4.6 miles</b> of road reclamation <b>0 miles</b> of road abandonment <b>11.1 miles</b> of road reconstruction <b>61.9 miles</b> Best Management Practices (BMP) Upgrades <b>49.4 miles</b> BMP maintenance (See Attachment A-1 – Road Activities Included in DNRC Timber Sale Contracts Sold in 2012 and 2013).  A list of individual road activities included in DNRC timber sales contracts sold during 2013, and individual timber sale contract maps are available upon request.	v.2.4-40



Table 3 Aquatics reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
<p>AQ-FC 1/6 of sites in need of corrective actions implemented, planned or designed every 5 years. All priority 1 sites completed within 15 years. All sites completed with 30 years. (annual and 5 year)</p>	<p>Maintain planning schedule and report accomplishments.</p>	<p>At the start of 2013 there were 89 identified stream crossing sites in need of corrective actions. During 2013, 6 sites were removed from the planning schedule because fisheries surveys determined that these streams were non-fish bearing. Correspondingly, 3 newly found and surveyed stream crossing sites were added to the list of sites in need of corrective actions. In addition, during 2013 corrective actions were completed on 3 sites. Currently there are 83 sites remaining from the original 106 sites identified in the original HCP baseline as in need of corrective actions. The HCP 5- year target requires DNRC to address 1/6 of the initial baseline sites in need of corrective actions (17 total sites) by 2017. DNRC has already achieved the 5 year goal following 2 years of HCP implementation. In addition, there is only a single Priority 1 site that remains in need of corrective actions (see Aquatic Attachment A-2 – 2013 HCP Fish Connectivity Implementation Monitoring).</p>	<p>v.2.4-41</p>
<p>AQ-GZ – Implement grazing conservation strategies for grazing licenses on classified forest lands.(annual)</p>	<p>Update status of grazing evaluations and verifications completed, and corrective action implemented.</p>	<p>During 2013, grazing evaluations were completed on 52 different grazing license located on 123 different trust land parcels. 98 of these parcels are included in the HCP project, and 24 of these parcels include a stream supporting an HCP covered fish species. These initial evaluations indicated that 2 of the parcels supporting HCP covered fish species may have adverse impacts to riparian vegetation and fish habitat and require follow-up verifications. Verifications have already been completed and both sites have been confirmed as being in need of corrective</p>	<p>v.2.4-41</p>

Table 3 Aquatics reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
		actions. To date no corrective actions have been implemented on these sites (See Aquatic Attachment A-3 – 2013 HCP Grazing License Verification and Corrective Action Status for more detailed information).	
AQ-Cumulative Watershed Effects (CWE) Has DNRC implemented the CWE commitments? (annual and 5 year)	Report number, type and location of CWE analysis completed. Provide documentation of mitigation measures or alternatives developed for projects with moderate or high CWE risks.	HCP checklists were completed for 6 Forest Management projects that did not meet the HCP criteria for requiring CWE analysis. CWE analyses were completed for 22 forest management projects during 2013. For 11 of these projects a Level 1 CWE analysis (coarse filter) was determined to be sufficient level of analysis due to determination of low risks. More detailed analysis (Level 2 and level 3) were completed on the other 11 projects where the CWE Coarse filter analysis determined that there was potential for moderate to high levels of risk.	v.2.4-41
Assess the potential Large Woody Debris (LWD) recruitment and determine whether in-stream LWD targets will be met on five or more riparian harvest sites. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	DNRC has initiated pre-harvest LWD, shade and stream temperature monitoring on 6 sites where RMZ harvest will be implemented under the HCP. DNRC has completed both pre-harvest and post-harvest LWD, shade and stream temperature monitoring at 3 sites harvest under SMZ law. In addition, monitoring has been completed for 3 sites harvest with SMZ/HCP hybrid prescriptions. A brief description of each individual RMZ/SMZ Harvest monitoring project is available upon request.	v.2.4-42
Evaluate levels of in-stream shade retained after riparian harvest. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	See information above.	v.2.4-42

Table 3 Aquatics reporting requirements and results

<b>HCP COMMITMENT (Reporting Frequency)</b>	<b>REPORTING REQUIREMENTS</b>	<b>ACCOMPLISHMENTS &amp; RESULTS</b>	<b>HCP Page(s)</b>
Monitor stream temperatures to evaluate if levels of in-stream cover are adequate to maintain stream temperatures. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	See information above.	v.2.4-42
BMP Audits on all applicable projects. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	<p>Internal BMP audits were conducted by DNRC on 13 timber sale projects during 2013. Seven of the 13 sites occurred within the HCP project area. In addition, three of the 13 sites audited were harvested prior to ITP issuance. The results of the internal audits conducted within the HCP project area found that BMP were properly applied on 97% of the practices rated and that those practices were effective in protecting soil and water on 98% of the practices rated. (See Aquatic Attachment A-4 – Results of 2013 DNRC Internal BMP Audits for more detailed information).</p> <p>Statewide BMP audits are planned by the DNRC Forestry Division for completion during the summer of 2014. During these audits typically 5-6 recently completed DNRC timber sales are evaluated. Results of the DNRC statewide audits will be included in the 2014 DNRC HCP Annual Report.</p>	v.2.4-43
Timber sale inspections on all applicable projects. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	During 2013, 588 timber sale inspections were completed on 52 ongoing timber sale projects within HCP project area. Examples of inspection reports are available upon request.	v.2.4-43
Ongoing quantitative studies at two sites. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	During 2013, DNRC completed soil effects monitoring on 1 site within the HCP project area. The monitoring is designed to quantify the amount of detrimental soil impacts (erosion,	v.2.4-43

Table 3 Aquatics reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
		displacement and compaction) occurring within harvest units on the Bear Canyon Timber Sale in the Bozeman Unit. DNRC continued 1 in-stream turbidity monitoring project in Harris Creek, Libby Unit, that is designed to evaluate the effectiveness of RMZ buffers in preventing sediment delivery to streams. Two years of pre-harvest baseline data has been collected at this site to date. A second in-stream turbidity monitoring project was also initiated in the Swan River State Forest that is designed to measure the magnitude and duration of turbidity events associated with a culvert removal on South Woodward Creek.	
Case studies monitoring the effectiveness of corrective actions in reducing sediment from existing sources. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	Case studies have not been initiated to date. Initial focus is on identifying sites in need of corrective actions (road inventory), setting priorities for corrective actions and implementing corrective actions.	v.2.4-43
Determine if fish connectivity corrective actions are effective. (annual and 5 year)	Annual update will consist of a summary of the status of all monitoring activities.	During 2013, effectiveness evaluations were completed on 13 of the 15 sites where corrective actions have been recently implemented on existing fish passage structures. At 12 of these sites stream channel form and function were determined to be successfully emulated following the corrective actions. Channel form and function has been properly emulated at one site due to over widening of the stream following culvert removal. However, fish passage is not impaired at this site and additional corrective actions are currently planned. Effectiveness evaluations of the 2 remaining sites are scheduled for the 2014 field season.	v.2.4-43

Table 3 Aquatics reporting requirements and results

HCP COMMITMENT (Reporting Frequency)	REPORTING REQUIREMENTS	ACCOMPLISHMENTS & RESULTS	HCP Page(s)
AQ-GR1 Redd Trampling Pilot Study. (Develop and finalize plan by year 2, implement plan by year 3)	Complete a plan for Redd trampling pilot study by year 2.	DNRC has developed a proposal for an approach to completing this monitoring requirement. This approach will be discussed at the 2014 annual meeting.	v.2.8-9

## TRANSITION LANDS STRATEGY

The purpose of the transition lands strategy is to describe the process for moving DNRC lands into or out of the HCP project area. The strategy ensures adequate levels of conservation for HCP species while allowing DNRC to meet its land management and fiduciary trust obligations. This subsection summarizes land transactions within two cap types (5% and 10%) from the period between January 1, 2013 and December 31, 2013. According to the HCP, DNRC will cap the removal of HCP project area lands in the NCDE and CYE grizzly bear recovery zones, CYE NROH, LMAs, and bull trout core habitat areas to 5% of the baseline of the original HCP project area. Additionally, DNRC would cap the removal of all other HCP lands at 10 to 15% of the original HCP project area. Since acres obtained through the Montana Working Forests Project have not yet been added to the HCP project area, the 10% cap applies.

### Land Dispositions

There were no acres removed from DNRC ownership within the HCP planning area for the reporting period of January 1, 2013 and December 31, 2013.

### Tracking Methods

Over the course of this reporting period DNRC improved the methods in which they communicate regarding land dispositions and purchases. This improvement has allowed the HCP Implementation Coordinator to be aware of all dispositions and purchases in a timely manner. In turn the USFWS will be notified if parcels within the HCP planning area are part of a land disposition early in the process. This will ensure all the Transition Lands commitments are being properly followed.

## TRAINING

The strength of the HCP lies in its implementation on the ground. Training DNRC staff responsible for implementing the HCP timber sale planning, design and administration is critical to ensure correct and consistent application of HCP commitments.

### Implementation Training for this Reporting Period

The following training took place during the reporting period, and will continue as the HCP progresses forward.

### **HCP Internal Website**

DNRC employees have access to an internal HCP website. This website contains all the information a project leader will need in order to properly implement the HCP. This includes information about HCP implementation as well as all the forms required to properly implement the HCP.

### **HCP Implementation Training**

#### ***Central Land Office***

During the reporting period the Central Land Office (CLO) hired a new Unit Manager and Forester. An informal HCP training session was conducted that focused on properly filling out the HCP checklist, using the implementation manual and navigating through the internal HCP website. The Central Land Office utilizes the Forest Management Bureau specialists during project development. This allows continual HCP training at the project level, thus a formal HCP Implementation Training has not been scheduled for the Central Land Office.

#### ***Real Estate Management Bureau***

Members of the Real Estate Management Bureau (REMB) were given a one day training course by the Forest Management Planner. This training provided an overview of the HCP; however the primary focus was on the transitional lands strategy. REMB and FMB work together to monitor land dispositions throughout the reporting period. This training allowed members of the REMB to gain insight into the requirements of the HCP and the importance of timely and accurate monitoring.

### **Bear Avoidance Training**

A web-based approach to satisfy GB-PR1 was approved by the USFWS and in place July 30, 2013. All staff that normally, or occasionally, perform duties associated with HCP-covered activities viewed the training video hosted on the DNRC employee intranet. As of January 21, 2014 over 123 employees had viewed the video and registered (list of names provided). A database is monitored by FMB staff to ensure compliance with GB-PR1 "employees trained on bear avoidance".

### **Project-level Training**

Project-level training occurs on a regular basis. Forest Management Bureau and Land Office Specialists participate on all Interdisciplinary Teams (ID) for projects in the HCP planning area. These Specialists are very familiar with the HCP and the conservation commitments. Many of them have served on the HCP Workgroup. This has made project-level training one of the most effective training tools for DNRC field staff. Questions arise on a project that might never surface in a classroom training session. Project-level training is ongoing and will continue to be a primary training method.

### **Grazing Management Training**

#### ***Grazing Licensee Information***

DNRC is in the process of designing a brochure that will inform our grazing licensees of the commitments within Habitat Conservation Plan for forest grazing within the HCP planning area. This brochure will describe the riparian conditions DNRC is managing for and will be supplemented with information on BMP's and grazing practices designed to achieve healthy riparian conditions. Distribution of this material is planned for the spring of 2014 prior to cattle turn-out.

### **DNRC Formal Training**

Forest Management Bureau staff provided onsite training to Area office staff responsible for implementing forest grazing licenses. Training was provided to Plains, Anaconda, Kalispell, Dillon and

Stillwater unit staff during license renewal and focused on riparian assessment. Unit staff was also involved with verification reviews as well as onsite assessments with assistance from the NRCS.

## **CHANGED CIRCUMSTANCES**

The processes for responding to Changed Circumstances are described in Chapter 6 of the HCP. The USFWS and DNRC are required to ensure changed circumstances are identified and planned for in the HCP. Changed Circumstances may be a result of administrative changes, natural events or a natural disturbance. (DNRC 2010)

There were no Changed Circumstances during this reporting period.

## **ADJUSTING FOR NEW RESEARCH**

DNRC and USFWS are required to exchange any new relevant research or emerging science annually and at the 5-year review. Both parties cooperatively determine if the new information will warrant changes to commitments or management actions.

There was no new relevant research presented by either agency during this reporting period.

## **SUMMARY**

The DNRC has successfully met the requirements for second year implementation and monitoring.

## **REFERENCES**

DNRC. 2010. Montana Department of Natural Resources and Conservation Forested State Trust Lands Habitat Conservation Plan: Final EIS, Volume II, Forest Management Bureau, Missoula, Montana.

## ATTACHMENTS

- Attachment A-1: Road Activities Included in DNRC Timber Sale Contracts Sold in 2012 and 2013
- Attachment A-2: 2013 HCP Fish Connectivity Implementation Monitoring
- Attachment A-3: 2013 HCP Grazing License Verification and Corrective Action Status
- Attachment A-4: Results of 2013 DNRC Internal BMP Audits
- Attachment G-1: Linear miles of open, restricted, and seasonally restricted road classes by DNRC land office and administrative unit.
- Attachment L-1: Composition of current (2/3/2014) lynx habitat, using the HCP lynx habitat definitions, on LMAs in the HCP project area.
- Attachment L-2: Acres of existing lynx habitat on Non-LMA parcels, using HCP lynx habitat definitions, on DNRC lands by Land Office in the HCP Project Area.



## **ATTACHMENT A-1**

### **Road Activities Included in DNRC Timber Sale Contracts Sold within HCP Planning Area During Calendar Years 2012 and 2013**

Road Activity	Originally Reported Jan 2012-April 2013	Corrected Jan 2012-Dec 2012 only	Current Reporting Period Jan 2013-Dec 2013
Permanent Road Construction	18.7 miles	15.7 miles	25.6 miles
Temporary Road Construction	8.2 miles	5.3 miles	10.9 miles
Road Reclamation	5.2 miles	4.3 miles	4.6 miles
Road Abandonment	0	0	0
Road Reconstruction	11.8 miles	10.8 miles	11.1 miles
BMP Upgrades	79.5 miles	67.2 miles	61.9 miles
BMP Maintenance	74.4 miles	53.0 miles	49.4 miles
Total Road Activities	197.8	156.3 miles	163.5 miles

## ATTACHMENT A-2

### FISH CONNECTIVITY

#### HCP Implementation Monitoring 2013

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Monitoring Commitment: Every 5 years, one-sixth of all sites needing improvement have been implemented, planned, or designed. All Priority 1 sites improved to provide connectivity within 15 years. All sites provide connectivity within 30 years.

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**TABLE 1 – Stream crossing sites within the HCP Project Area with HCP-covered species where DNRC has access and sole ownership.**

Site Class	Baseline Numbers (EIS)	Numbers (from end of 2012)	Number of Sites Added to Inventory during 2013	Number of Sites Removed from Inventory during 2013	Number of Sites with Corrective Actions Implemented during 2013	Net Change in Number of Sites during 2013	Final Numbers at end of 2013
Priority 1	0	1	0	0	0	0	1
Priority 2	3	4	0	0	0	0	4
Priority 3	99	82	3	6	3	-6	76
Priority 4	4	2	0	0	0	0	2
<b>TOTAL</b>	<b>106</b>	<b>89</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>-6</b>	<b>83</b>

#### MONITORING ASSESSMENT:

- Between the establishment of the initial baseline numbers during HCP development and the end of 2012, DNRC had completed corrective actions on 12 sites fish passage sites.
- During 2013 DNRC completed corrective actions on 3 additional fish passage sites.
- During the first 2 years of HCP implementation approximately 33 sites were added to the inventory and 41 sites were removed due to data refinements.
- Approximately 22% of the sites on the original baseline have been removed or had corrective actions implemented.

**HCP Connectivity Sites Removed From the Inventory During 2013**

<b>Record #</b>	<b>Stream</b>	<b>Watershed</b>	<b>Note</b>
43	Werner Creek	Swift Creek	Reach surveyed; non-fish bearing
44	Taylor Creek	Swift Creek	Reach surveyed; non-fish bearing
53	Bear Creek	Swift Creek	Reach surveyed; non-fish bearing
54	Bear Creek	Swift Creek	Reach surveyed; non-fish bearing
55	Bear Creek	Swift Creek	Reach surveyed; non-fish bearing
351	South Woodward	Woodward Creek	Maintain as barrier for WCT; per MT FWP

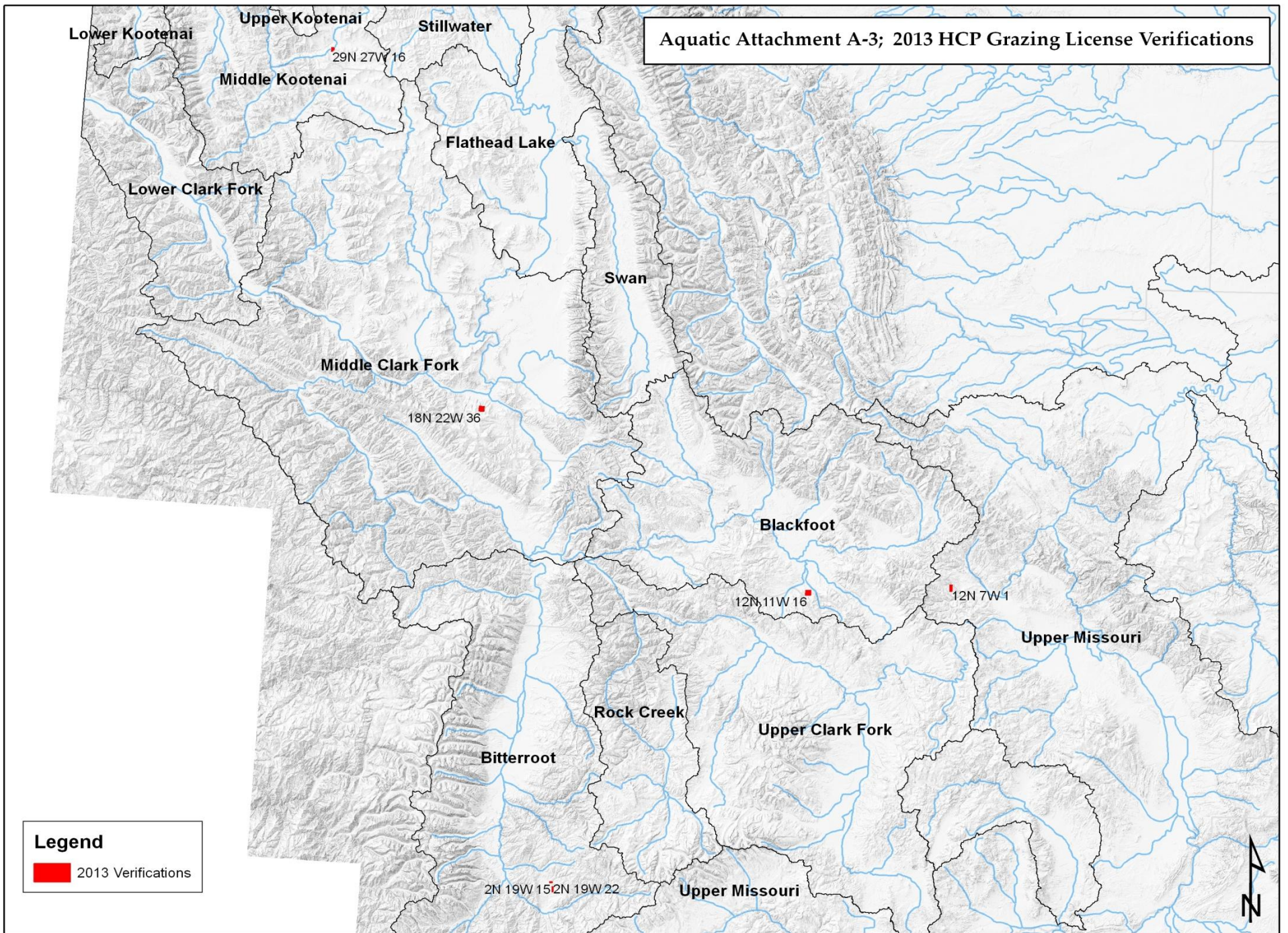
**HCP Connectivity Sites with Correction Actions Implemented during 2013**

<b>Record #</b>	<b>Stream</b>	<b>Watershed</b>	<b>Note</b>
417	South Frying Pan	Horse Prairie	Partial barrier culvert removed
852	Little Fish Creek	Blackfoot River	Partial barrier culvert removed
864	Buffalo Bill Creek	Lynch Creek	Partial barrier culvert replaced

## ATTACHMENT A-3 – 2013 HCP Grazing License Verification and Corrective Action Status

Applied Corrective Actions in 2013							
License #	Location	Legal	Stream Name	Fishery	Coarse Filter Trigger	Status	Narrative
3050492	NWLO/PLN	17N 21W S16	North Fork Valley Creek*	WCT	Stream bank alteration -23%	Verification Completed - Corrective Action Applied in 2013	Identified as needing verification in 2012. Site was visited in 2013 and corrective action was designed. AUMs reduced from 113 to 80.
3060905	SWLO/MSL	8N 15W S16	Unnamed Trib of Upper Willow Creek	WCT	Stream bank alteration -20%	Verification Completed - Corrective Action Pending	Planning riparian enclosure that will be implemented in summer 2013
3053085	NWLO/KAL	26N 23W S26	Two Unnamed Tribes to Mount Creek	WCT	Stream bank alteration (50%), Browse Utilization (40% M, 40% Heavy)	Verification Completed - Corrective Action Applied in Spring 2013	AUMs decreased and season of use shortened.
3060364	SWLO/MSL	5N 14W S16	Little Trout Creek	WCT	Stream bank alteration (45%)	Verification Completed - Corrective Action Applied in Fall 2013	Grazing has been deferred until riparian enclosure is installed. Planned corrective action implementation summer 2013.
3060453	SWLO/ANA	9N 14W S16	Cottonwood Creek	WCT	Browse Utilization - 80% Moderate	Verification Completed - Corrective Action Applied in 2013	AUMs decreased and season of use shortened.
3060530	SWLO/HAM	11N 20W S12	Squaw Creek	WCT	Streambank trampling	Verification Completed - Corrective Action Applied in Spring 2013	Electric fence was installed during grazing period to enclose impacted stream segment during the 2013 grazing season and planned to continue into the future.
Completed Verification in 2013							
License #	Location	Legal	Stream Name	Fishery	Coarse Filter Trigger	Status	Narrative
3060905	SWLO/ANA	8N 15W S5	Beaver Creek	WCT	Browse Utilization - 10% Heavy	Verification Completed - Dismissed	Heavier levels of browse was observed only around small ponds in the section. Ponds have no inflow or outflow and do not support a fishery. Bank trampling was not evident and browse was hypothesized to result from wildlife. Good age class of riparian shrubs represented. No corrective action necessary.
3060529	SWLO/CLW	15N 12W S16	Dick Creek	WCT	Streambank alteration - 40%	Verification Completed - Dismissed	Site was visited on June 14, 2013 for verification. The entire portion of Dick Creek on State land was evaluated. Cattle are crossing at two historic road/stream crossing sites and at these crossing bank trampling is excessive though localized and short. Total length of impacted area was estimated a 100 feet cumulatively for both crossing sites. The remainder of the stream is in functional condition with very thick brush that limits access to the stream. No management changes in the grazing license were identified during verification.
3060543	SWLO/MSL	12N 15W S16	Unnamed trib to Camas Creek	WCT	Streambank alteration - 50%	Verification Completed - Dismissed	Site was visited on June 14, 2013 to verify previous evaluation. The springhead forming Camas Creek was the stream reach in question. Segments below springhead showed significant geomorphic change from excessive historic cattle trampling, but current and past year trampling was minimal and under recommendations. Vegetation communities had adequate age classes and provided bank stability. The springhead is a sensitive site and need to be closely monitored by licensees. Brushed barriers would be effective at this site in the future if heavy use becomes evident.
3060911	SWLO/HAM	02N 19W S15	Hart Creek	WCT	Streambank trampling	Verification Completed - Corrective Action Pending	Streambank trampling was verified during midterm review to be excessive. Corrective actions will be planned with stakeholders in the Spring of 2014.
3060518	SWLO/HAM	02N 19W S22	Lyman Creek	WCT	Streambank trampling	Verification Completed - Corrective Action Pending	Streambank trampling was verified during midterm review to be excessive. Corrective actions will be planned with stakeholders in the Spring of 2014.
3061243	SWLO/CLW	12N 11W S16	Unnamed Trib to Cottonwood Creek	None	Streambank Trampling, Browse Utilization	Verification Completed - Corrective Action Pending	Riparian condition is severely impaired through streambank and riparian vegetation alteration. Corrective action will be planned in concert with proposed forest management activities
Sites needing Verification in 2014							
License #	Location	Legal	Stream Name	Fishery	Coarse Filter Trigger	Status	Narrative
3053324	NWLO/LIB	29N 27W 16	Kavalla Creek	None	Streambank Trampling	Verification Pending - Spring 2014	Site was identified through licenses renewal to have elevated levels of streambank alteration
3072944	CLO/HEL	12N 7W 1	Marsh Creek	None	Streambank Trampling	Verification Pending - Spring 2014	Site was identified through licenses renewal to have elevated levels of streambank alteration
3072945	CLO/HEL	12N 7W 1	Marsh Creek	None	Streambank Trampling	Verification Pending - Spring 2014	Site was identified through licenses renewal to have elevated levels of streambank alteration
3050499	NWLO/PLA	18N 22W 36	Selow Creek	None	Streambank Trampling	Verification Pending - Spring 2014	Site was identified through licenses renewal to have elevated levels of streambank alteration





## ATTACHMENT A-4

### Results of 2013 DNRC Internal BMP Audits

Timber Sale or Timber Permit Name	Area	Unit	HCP Status	Date Harvested	Lead	% Practices Adequate BMP Application	% Practices BMPs Effective
White Porcupine #1	NWLO	SWN	HCP	2010	Vessar	100%	100%
Swedish Chicken	NWLO	STW	HCP	2012	Vessar	95%	97%
Boorman Peak	NWLO	KAL	HCP	2012	Vessar	100%	100%
Six Hills	NWLO	LIB	HCP	2012	Vessar	97%	97%
Henry Fuels	NWLO	PLN	HCP	2013	Vessar	100%	100%
McNamara	SWLO	MSO	HCP	2013	Collins	100%	100%
Nemo	SWLO	CLW	HCP	2013	Collins	89%	88%
Baldy	SWLO	ANA	Non-HCP	2011	Collins	100%	100%
Eightmile	SWLO	HAM	Non-HCP	2012	Collins	100%	100%
Monkey Salvage	CLO	DIL	Non-HCP	2012	Frank	97%	97%
Crispy Columbus	SLO		Non-HCP	2012	Jeff S.	95%	95%
Dutch Gulch	ELO		Non-HCP	2012	Jeff S.	97%	100%
Sure Enough	NELO		Non-HCP	2013	Jeff S.	90%	94%
<b>Total (all sites)</b>						97%	98%
<b>Total (sites in HCP Project Area)</b>						97%	98%

## **BMP Application Departures (Sites within HCP Project Area)**

**243** total practices rated

**236** practices rated as “Adequate”

**7** practices rated as “Minor Departures”

**0** practices rated as “Major Departures” or “Gross Neglect”

### **Minor Departures from BMP**

- Six Hills TS

**BMP-** Stream crossing culverts conform to natural streambed and slope. (V.C.2)

**Comments** – *“Placed on grade - elevation of CMP raised above designed level”*

- Swedish Chicken TS

**BMP-** Design all relief culverts with adequate length and appropriate skew.

Protect inflow end from erosion. Catch basins where appropriate. (III.C.3)

**Comments-** *“Ditch relief/spring CMP catch basin slumped and partially plugged CMP. Because the outlet of CMP is the start of a class 2 stream, delivery is obvious. Need to clean CMP and armor catch basin.”*

**BMP-** Provide adequate road surface drainage for all roads. (III.C.1)

**Comments-** *“Drain dips not built to spec but no delivery to streams or draws noted. One site has evidence of drainage at a stream crossing but the slash filter and rock armor were effective at filtering. No evidence of delivery observed.”*

- Nemo TS

**BMP-** Avoid use of roads during wet periods and spring breakup. (III.E.6)

**Comments-** None

**BMP-** Maintain erosion control features (dips, ditches and culverts functional).

(III.E.2) **Comments-** *“Road surface drainage damaged by ruts ditches have ruts and slash on road reviewed.”*

**BMP-** Grade roads as necessary to maintain drainage. (III.E.1)

**Comments-** *“Portions of road reviewed, Moonfish, Dory, Wallaby Way are rutted and require immediate grading before frozen conditions.”*

**BMP-** Reconstruct only to the extent necessary to provide adequate drainage and safety. (III.D.10)

**Comments-** *“BMP states avoid disturbing stable road surfaces, ruts in grassed road”*



### Effectiveness Departures (Sites within HCP Project Area)

- **242** total practices rated
- **236** practices rated as “Adequate Protection”
- **4** practices rated as “Minor and Temporary Impacts”
- **2** practices rated as “Major and Temporary” or “Minor and Prolonged Impacts”
- **0** practices rated as “Major and prolonged Impacts”

#### **Minor and Temporary Impact**

- Nemo TS

**BMP-** Avoid use of roads during wet periods and spring breakup. (III.E.6).

**Comments-** None

**BMP-** Maintain erosion control features (dips, ditches and culverts functional). (III.E.2). **Comments-** *“Road surface drainage damaged by ruts ditches have ruts and slash on road reviewed.”*

**BMP-** Grade roads as necessary to maintain drainage. (III.E.1)

**Comments-** *“Portions of road reviewed, Moonfish, Dory, Wallaby Way are rutted and require immediate grading before frozen conditions.”*

**BMP-** Reconstruct only to the extent necessary to provide adequate drainage and safety. (III.D.10). **Comments-** *“BMP states avoid disturbing stable road surfaces, ruts in grassed road”*

#### **Major and Temporary or Minor and Prolonged Impacts**

- Six Hills TS

**BMP-** Stream crossing culverts conform to natural streambed and slope. (V.C.2)

**Comments –** *“Placed on grade - elevation of CMP raised above designed level”*

- Swedish Chicken TS

**BMP-** Design all relief culverts with adequate length and appropriate skew. Protect inflow end from erosion. Catch basins where appropriate. (III.C.3)

**Comments-** *“Ditch relief/spring CMP catch basin slumped and partially plugged CMP. Because the outlet of CMP is the start of a class 2 stream, delivery is obvious. Need to clean CMP and armor catch basin.”*



# ATTACHMENT G-1

Table Wildlife DNRC HCP Baseline 4/17/2012.		Linear miles of open, restricted, and seasonally restricted road classes by DNRC land office and administrative unit.							
D. Riebe									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices in Recovery Zones (Scattered or Blocked Status)	Linear Miles of Road in Recovery Zone							Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*	Total Area (Sqr. Miles)		
<b>NWLO</b>	<b>187.6</b>	<b>479.9</b>	<b>12.1</b>	<b>19.7</b>	<b>9.0</b>	<b>679.6</b>	<b>227</b>	<b>145,262</b>	<b>3.0</b>
Kalispell Unit NCDE (Scattered)	14.6	28.2		2.6	-	42.8	10	6,465	4.2
Libby Unit CYE (Scattered)	0.0	8.2	0.1	0.4	0.2	8.3	4	2,848	1.9
Plains Unit CYE (Scattered)	6.0	8.5		0.1	-	14.5	5	3,308	2.8
Stillwater Unit NCDE (Blocked)	122.0	227.4	6.7	9.1	3.8	356.1	141	90,512	2.5
Stillwater Unit NCDE (Scattered)	2.0	11.1			0.0	13.1	4	2,474	3.4
Swan Unit NCDE (Blocked)	43.0	196.5	5.4	7.4	4.9	244.9	62	39,656	4.0
<b>SWLO</b>	<b>19.9</b>	<b>23.0</b>	<b>-</b>	<b>3.6</b>	<b>1.0</b>	<b>42.9</b>	<b>11</b>	<b>7,229</b>	<b>3.8</b>
Clearwater Unit NCDE (Scattered)	15.7	21.4	-	3.6	1.0	37.1	7	4,779	5.0
Missoula Unit NCDE (Scattered)	4.2	1.6	-	-	-	5.8	4	2,450	1.5
<b>CLO</b>	<b>0.2</b>	<b>0.3</b>	<b>-</b>	<b>-</b>	<b>0.5</b>	<b>1.0</b>	<b>1</b>	<b>639</b>	<b>1.0</b>
Helena Unit NCDE (Scattered)	0.2	0.3	-	-	0.5	1.0	1	639	1.0
* does not include Abandoned or Reclaimed									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices in Non Recovery Occupied Zone (Scattered or Blocked Status)	Linear Miles of Road in Non Recovery Occupied							Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*	Total Area (Sqr. Miles)		
<b>NWLO</b>	<b>101.2</b>	<b>141.2</b>	<b>3.0</b>	<b>12.3</b>	<b>6.9</b>	<b>245.3</b>	<b>59</b>	<b>37,715</b>	<b>4.2</b>
Kalispell Unit NCDE (Scattered)	17.9	9.0		0.3	2.1	27.0	9	5,950	2.9
Libby Unit CYE (Scattered)	23.3	49.0	1.2			73.4	15	9,856	4.8
Libby Unit NCDE (Scattered)	0.0					0.0	0	0	0.0
Plains Unit CYE (Scattered)	8.7	2.6	1.8			13.1	4	2,269	3.7
Plains Unit NCDE (Scattered)	3.7	9.7		1.2		13.4	4	2,813	3.0
Stillwater Unit CYE (Scattered)	0.0	0.0		0.0		0.0	0	0	2.3
Stillwater Unit NCDE (Scattered)	47.6	70.9		10.8	4.9	118.4	26	16,826	4.5
<b>SWLO</b>	<b>66.4</b>	<b>188.3</b>	<b>0.4</b>	<b>39.2</b>	<b>1.0</b>	<b>255.0</b>	<b>64</b>	<b>41,314</b>	<b>4.0</b>
Anaconda Unit NCDE (Scattered)	6.7	14.4	-	-	-	21.2	9	6,011	2.3
Clearwater Unit NCDE (Scattered)	59.6	173.8	0.4	39.2	1.0	233.8	54	34,672	4.3
Missoula Unit NCDE (Scattered)	-	-	-	-	-	-	1	631	-
<b>CLO</b>	<b>10.2</b>	<b>68.2</b>	<b>0.1</b>	<b>7.3</b>	<b>1.9</b>	<b>78.5</b>	<b>53</b>	<b>33,717</b>	<b>1.5</b>
Bozeman Unit GYE (Scattered)	5.0	6.0	0.1	-	-	11.0	13	8,129	0.9
Dillon Unit GYE (Scattered)	1.5	51.9	-	6.7	-	53.4	31	19,627	1.7
Helena Unit NCDE (Scattered)	3.8	10.3	-	0.6	1.9	14.1	9	5,961	1.5
* does not include Abandoned or Reclaimed									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices Outside Grizzly Zones (Scattered Status)	Linear Miles of Road in Non Grizzly Bear Designated Areas							Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*	Total Area (Sqr. Miles)		
<b>NWLO</b>	<b>279.7</b>	<b>284.6</b>	<b>2.9</b>	<b>15.8</b>	<b>11.5</b>	<b>567.2</b>	<b>420</b>	<b>87,358</b>	<b>1.3</b>
Kalispell Unit	110.4	71.9	-	9.8	10.9	182.3	44	27,980	4.2
Libby Unit	29.2	75.6	0.3			105.1	24	15,341	4.4
Plains Unit	140.1	137.1	2.5	6.1	0.7	279.7	69	44,036	4.1
<b>SWLO</b>	<b>232.2</b>	<b>378.5</b>	<b>10.1</b>	<b>66.5</b>	<b>9.2</b>	<b>620.9</b>	<b>176</b>	<b>112,436</b>	<b>3.5</b>
Anaconda Unit	78.2	63.4	-	2.0	0.8	141.6	61	38,760	2.3
Clearwater	29.3	40.7	-	1.3	-	70.1	12	7,698	5.8
Hamilton Unit	36.3	98.9	9.8	46.9	6.4	145.0	36	22,820	4.1
Missoula Unit	88.4	175.5	0.4	16.3	2.1	264.2	67	43,157	3.9
<b>CLO</b>	<b>44.9</b>	<b>142.8</b>	<b>1.9</b>	<b>13.1</b>	<b>1.7</b>	<b>189.6</b>	<b>122.4</b>	<b>78,358</b>	<b>1.5</b>
Bozeman Unit	6.0	21.0	1.6	0.8		28.5	13	8,363	2.2
Dillon Unit	20.1	100.7	0.3	12.2	1.5	121.1	79	50,474	1.5
Helena Unit	18.8	21.2	-		0.2	40.0	31	19,520	1.3

Table Wildlife DNRC HCP 2/19/2014		Linear miles of open, restricted, and seasonally restricted road classes by DNRC land office and administrative unit.							
D. Riebe									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices in Recovery Zones (Scattered or Blocked Status)	Linear Miles of Road in Recovery Zone						Total Area (Sqr. Miles)	Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*			
<b>NWLO</b>	<b>184.6</b>	<b>476.3</b>	<b>12.2</b>	<b>18.5</b>	<b>7.0</b>	<b>673.0</b>	<b>227</b>	<b>145,272</b>	<b>3.0</b>
Kalispell Unit NCDE (Scattered)	14.0	28.2	-	2.6	-	42.2	10	6,458	4.2
Libby Unit CYE (Scattered)	0.0	8.1	0.1	0.4	0.2	8.2	4	2,846	1.8
Plains Unit CYE (Scattered)	6.0	8.5	-	0.1	-	14.5	5	3,319	2.8
Stillwater Unit NCDE (Blocked)	128.2	228.4	6.7	7.7	2.8	363.4	141	90,513	2.6
Stillwater Unit NCDE (Scattered)	0.9	9.9	-	-	0.0	10.8	4	2,481	2.8
Swan Unit NCDE (Blocked)	35.5	193.1	5.4	7.7	3.9	234.0	62	39,656	3.8
<b>SWLO</b>	<b>11.8</b>	<b>18.4</b>	<b>-</b>	<b>3.1</b>	<b>1.6</b>	<b>30.2</b>	<b>8</b>	<b>5,101</b>	<b>3.8</b>
Clearwater Unit NCDE (Scattered)	11.8	18.4	-	3.1	1.6	30.2	7	4,782	4.0
Missoula Unit NCDE (Scattered)	-	-	-	-	-	-	0	320	-
<b>CLO</b>	<b>0.0</b>	<b>0.1</b>	<b>-</b>	<b>-</b>	<b>0.5</b>	<b>0.7</b>	<b>1</b>	<b>639</b>	<b>0.7</b>
Helena Unit NCDE (Scattered)	0.0	0.1	-	-	0.5	0.7	1	639	0.7
* does not include Abandoned or Reclaimed									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices in Non Recovery Occupied Zone (Scattered or Blocked Status)	Linear Miles of Road in Non Recovery Occupied						Total Area (Sqr. Miles)	Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*			
<b>NWLO</b>	<b>94.7</b>	<b>148.0</b>	<b>3.4</b>	<b>12.8</b>	<b>6.9</b>	<b>246.2</b>	<b>58.9</b>	<b>37,724</b>	<b>4.2</b>
Kalispell Unit NCDE (Scattered)	17.8	8.6	0.4	0.3	2.1	26.8	9.3	5,980	2.9
Libby Unit CYE (Scattered)	21.2	53.8	1.2	0.0	-	76.1	15.4	9,838	5.0
Libby Unit NCDE (Scattered)	-	-	-	-	-	-	0.0	0	-
Plains Unit CYE (Scattered)	6.9	8.1	1.8	0.2	0.1	17.0	3.6	2,286	4.8
Plains Unit NCDE (Scattered)	3.7	9.7	-	1.2	-	13.4	4.4	2,792	3.1
Stillwater Unit CYE (Scattered)	-	0.0	-	-	-	0.0	0.0	0	2.0
Stillwater Unit NCDE (Scattered)	45.1	67.8	-	11.1	4.7	113.0	26.3	16,829	4.3
<b>SWLO</b>	<b>68.7</b>	<b>187.9</b>	<b>0.9</b>	<b>40.1</b>	<b>2.3</b>	<b>257.4</b>	<b>63.6</b>	<b>40,714</b>	<b>4.0</b>
Anaconda Unit NCDE (Scattered)	1.7	24.4	0.5	0.9	1.3	26.7	9.4	6,011	2.8
Clearwater Unit NCDE (Scattered)	66.9	163.5	0.4	39.2	1.0	230.8	54.2	34,683	4.3
Missoula Unit NCDE (Scattered)	-	-	-	-	-	-	0.0	21	-
<b>CLO</b>	<b>17.7</b>	<b>60.0</b>	<b>0.8</b>	<b>7.3</b>	<b>1.9</b>	<b>78.5</b>	<b>52.6</b>	<b>33,685</b>	<b>1.5</b>
Bozeman Unit GYE (Scattered)	5.0	5.2	0.8	-	-	11.0	12.7	8,129	0.9
Dillon Unit GYE (Scattered)	5.5	47.9	-	6.7	-	53.4	30.7	19,626	1.7
Helena Unit NCDE (Scattered)	7.2	6.8	-	0.6	1.9	14.1	9.3	5,930	1.5
* does not include Abandoned or Reclaimed									
DNRC Lands in the HCP Project Area									
Land Offices and Unit Offices Outside Grizzly Zones (Scattered Status)	Linear Miles of Road in Non Grizzly Bear Designated Areas						Total Area (Sqr. Miles)	Acres	Total roads/sqr mile
	Open Roads	Restricted Roads	Seasonally Restricted Roads	Abandoned	Reclaimed	Total*			
<b>NWLO</b>	<b>275.2</b>	<b>283.0</b>	<b>3.8</b>	<b>15.9</b>	<b>11.5</b>	<b>562.0</b>	<b>411</b>	<b>87,354</b>	<b>1.4</b>
Kalispell Unit	109.9	71.4	0.5	9.8	10.9	181.8	44	27,976	4.2
Libby Unit	30.9	75.6	0.3	-	-	106.8	25	15,692	4.4
Plains Unit	134.4	136.0	3.0	6.1	0.7	273.5	68	43,686	4.0
<b>SWLO</b>	<b>156.3</b>	<b>407.8</b>	<b>33.0</b>	<b>76.2</b>	<b>11.8</b>	<b>597.1</b>	<b>171</b>	<b>109,424</b>	<b>3.5</b>
Anaconda Unit	32.9	106.2	20.4	12.3	3.4	159.6	60	38,233	2.7
Clearwater	29.7	31.5	-	1.1	-	61.2	10	6,391	6.1
Hamilton Unit	27.0	94.5	9.7	46.4	6.4	131.2	34	21,852	3.8
Missoula Unit	66.6	175.6	2.9	16.4	2.1	245.1	67	42,949	3.7
<b>CLO</b>	<b>68.5</b>	<b>118.9</b>	<b>1.9</b>	<b>13.3</b>	<b>1.7</b>	<b>189.3</b>	<b>123.2</b>	<b>78,870</b>	<b>1.5</b>
Bozeman Unit	6.0	21.0	1.6	0.8	-	28.5	13	8,365	2.2
Dillon Unit	30.9	89.6	0.3	12.5	1.5	120.7	80	50,996	1.5
Helena Unit	31.7	8.3	-	-	0.2	40.0	30	19,509	1.3

## ATTACHMENT L-1

Table B4.9-20 Baseline (April 2012)

Composition of current (3/30/2012) lynx habitat, using the HCP lynx habitat definitions, on LMAs in the HCP project area.

Data from LynxAreaDataCombinationWithTracts20120330.xlsx

D. Riebe

Habitat Class	Proposed LMA's (Land Office)											
	Stillwater West		Stillwater East		Coal Creek		Swan		Seeley Lake Area		Garnet Area	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Winter Foraging Habitat	20,330	57%	24,322	71%	6,410	49%	21,981	60%	1,724	38%	1,079	30%
Summer Foraging Habitat	6,478	18%	2,608	8%	1,934	15%	4,930	14%	265	6%	255	7%
Other Suitable Habitat	4,066	11%	2,627	8%	862	7%	3,441	9%	688	15%	1,847	51%
Suitable Habitat Subtotal	30,874	87%	29,557	86%	9,206	70%	30,353	83%	2,678	59%	3,182	87%
Temporary Non-suitable Habitat	4,566	13%	4,903	14%	3,962	30%	6,080	17%	1,854	41%	462	13%
Total Potential Lynx Habitat	35,439	92%	34,460	94%	13,168	86%	36,433	92%	4,531	46%	3,644	49%
Non-habitat	3,167	8%	2,226	6%	2,070	14%	3,224	8%	5,396	54%	3,863	51%
<b>DNRC Total Acres</b>	<b>38,606</b>	<b>100%</b>	<b>36,686</b>	<b>100%</b>	<b>15,238</b>	<b>100%</b>	<b>39,657</b>	<b>100%</b>	<b>9,928</b>	<b>100%</b>	<b>7,507</b>	<b>100%</b>

Original HCP comparison Table 4.9-20, p. 4-361 of Vol. I HCP FEIS 2010

Table B4.9-20 February 2014 data

Composition of current (2/3/2014) lynx habitat, using the HCP lynx habitat definitions, on LMAs in the HCP project area.

Data from ComboHcoLmaSli20140203.xlsx

(2/3/2014)

D. Riebe

Habitat Class	Proposed LMA's (Land Office)											
	Stillwater West		Stillwater East		Coal Creek		Swan		Seeley Lake Area		Garnet Area	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Winter Foraging Habitat	19,476	55%	23,518	68%	6,399	49%	20,383	56%	1,791	39%	925	25%
Summer Foraging Habitat	6,404	18%	2,591	8%	2,303	17%	4,818	13%	262	6%	242	7%
Other Suitable Habitat	4,689	13%	2,735	8%	1,083	8%	3,493	10%	729	16%	2,014	55%
Suitable Habitat Subtotal	30,569	86%	28,844	84%	9,785	74%	28,694	78%	2,782	61%	3,181	87%
Temporary Non-suitable Habitat	5,022	14%	5,568	16%	3,377	26%	7,878	22%	1,755	39%	484	13%
Total Potential Lynx Habitat	35,591	92%	34,412	94%	13,162	86%	36,572	92%	4,537	46%	3,665	49%
Non-habitat	2,995	8%	2,246	6%	2,071	14%	3,084	8%	5,391	54%	3,854	51%
<b>DNRC Total Acres</b>	<b>38,586</b>	<b>100%</b>	<b>36,658</b>	<b>100%</b>	<b>15,233</b>	<b>100%</b>	<b>39,656</b>	<b>100%</b>	<b>9,928</b>	<b>100%</b>	<b>7,519</b>	<b>100%</b>

## ATTACHMENT L-2

Table B4.9-21 Baseline (April 2012)

Acres of existing lynx habitat (3/30/2012) on Non-LMA parcels, using HCP lynx habitat definitions, on DNRC lands by Land Office in the HCP Project Area.

Data from LynxAreaDataCombinationWithTracts20120307.xlsx

Habitat Class	NWLO		SWLO		CLO		Total
Winter Foraging Habitat	44,859	69%	11,101	44%	N/A	N/A	55,960
Summer Foraging Habitat	4,580	7%	3,110	12%	3,078	8%	10,767
Other Suitable Habitat	8,515	13%	6,267	25%	22,862	60%	37,644
<b>Suitable Habitat SubTotal</b>	<b>57,954</b>	<b>89%</b>	<b>20,478</b>	<b>81%</b>	<b>25,939</b>	<b>69%</b>	<b>104,371</b>
Temporary NonSuitable Habitat	7,519	11%	4,643	19%	11,901	31%	24,063
<b>Total Potential Lynx Habitat</b>	<b>65,473</b>	<b>47%</b>	<b>25,121</b>	<b>17%</b>	<b>37,840</b>	<b>34%</b>	<b>128,434</b>
Non-habitat	74,694	53%	118,423	83%	74,874	66%	267,991
<b>Total Acres</b>	<b>140,167</b>	<b>100%</b>	<b>143,544</b>	<b>100%</b>	<b>112,714</b>	<b>100%</b>	<b>396,425</b>
<b>Total HCP</b>	<b>143,018</b>		<b>144,469</b>		<b>113,182</b>		<b>400,669</b>

Table B4.9-21 February 2014

Acres of existing lynx habitat (2/3/2014) on Non-LMA parcels, using HCP lynx habitat definitions, on DNRC lands by Land Office in the HCP Project Area.

Data from ComboHcoLmaSli20140203.xlsx

(2/3/2014)

D. Riebe

	HCP Project Area (%)										
Habitat Class	NWLO		SWLO		CLO		Total				
Winter Foraging Habitat	41,849	64%	10,629	43%	N/A	N/A	52,478				
Summer Foraging Habitat	4,331	7%	2,081	8%	3,146	8%	9,558				
Other Suitable Habitat	10,130	15%	6,681	27%	25,674	63%	42,485				
<b><i>Suitable Habitat SubTotal</i></b>	<b>56,310</b>	<b>86%</b>	<b>19,391</b>	<b>79%</b>	<b>28,820</b>	<b>71%</b>	<b>104,521</b>				
Temporary NonSuitable Habitat	9,047	14%	5,136	21%	11,742	31%	25,925				
<b><i>Total Potential Lynx Habitat</i></b>	<b>65,357</b>	<b>47%</b>	<b>24,527</b>	<b>18%</b>	<b>40,562</b>	<b>38%</b>	<b>130,446</b>				
Non-habitat	74,412	53%	113,219	83%	66,506	66%	254,137				
<b><i>Total Acres</i></b>	<b>139,769</b>	<b>100%</b>	<b>137,746</b>	<b>100%</b>	<b>107,068</b>	<b>100%</b>	<b>384,583</b>				
<b><i>Total 2012</i></b>	<b>140,167</b>		<b>143,544</b>		<b>112,714</b>		<b>396,425</b>				